

WHAT IS CLAIMED IS:

1. A water purification apparatus for purifying water from a supply of water having a quantity of free residual chlorine comprising:

- 5 a first water purification means for removing a quantity of the free residual chlorine from water, said first water purification means having an inlet and an outlet;
- a second water purification means for removing solids from water and having an inlet and an outlet, said inlet of said second water purification means being connected to said outlet of said first water purification means;
- 10 a third water purification means for treating water for bacteria and having an inlet and an outlet, said inlet of said third water purification means being connected to said outlet of said second water purification means;
- a bypass conduit having a first valve connected intermediate an inlet end and an outlet end;
- 15 a second valve connected between said inlet end of said bypass conduit and said inlet of said first water purification means; and
- a third valve connected between said outlet of said third water purification means and said outlet end of said bypass conduit whereby when said inlet end of said bypass conduit is connected to a supply of water having a quantity of free residual chlorine and said outlet end of said bypass conduit is connected to a point of use, said first valve can be closed and said second and third valves can be opened to provide purified water to the point of use and said first valve can be opened and said second and third valves can be closed to provide chlorinated water to the point of use.
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2. The apparatus according to claim 1 wherein said first water purification means is a carbon filter.

3. The apparatus according to claim 1 wherein said first water purification means is at least two carbon filters.

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4. The apparatus according to claim 1 wherein said second water purification means is a particle filter.

5        5. The apparatus according to claim 1 wherein said second water purification means is at least two particle filters.

6. The apparatus according to claim 1 wherein said third water purification means is an ultraviolet light source.

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7. The apparatus according to claim 1 wherein said third water purification means is at least two ultraviolet light sources.

8. The apparatus according to claim 1 including a water meter connected to said  
15 bypass conduit inlet for measuring water flow into the water purification apparatus.

9. The apparatus according to claim 1 including a first pressure gage connected at said inlet of said first water purification means and a second pressure gage connected at said outlet of said third water purification means, said first and second pressure gages measuring a  
20 pressure differential.

10. The apparatus according to claim 1 including a pressure gage connected to said bypass conduit between said first valve and said outlet of said bypass conduit.

11. A water purification apparatus for purifying water from a supply of water having a quantity of free residual chlorine comprising:

a carbon filter for removing a quantity of the free residual chlorine from water, said carbon filter having an inlet and an outlet;

5 a particle filter for removing solids from water and having an inlet and an outlet, said inlet of said particle filter being connected to said outlet of said carbon filter;

an ultraviolet light source for treating water for bacteria and having an inlet and an outlet, said inlet of said ultraviolet light source being connected to said outlet of said particle filter;

10 a bypass conduit having a first valve connected intermediate an inlet end and an outlet end;

a second valve connected between said inlet end of said bypass conduit and said inlet of said carbon filter; and

15 a third valve connected between said outlet of said ultraviolet light source and said outlet end of said bypass conduit whereby when said inlet end of said bypass conduit is connected to a supply of water having a quantity of free residual chlorine and said outlet end of said bypass conduit is connected to a point of use, said first valve can be closed and said second and third valves can be opened to provide purified water to the point of use and said first valve can be  
20 opened and said second and third valves can be closed to provide chlorinated water to the point of use.

12. The apparatus according to claim 11 wherein said carbon filter is at least two carbon filter beds connected together.

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13. The apparatus according to claim 11 wherein said particle filter is at least two particle filters connected together.

14. The apparatus according to claim 11 wherein said ultraviolet light source is at least  
30 two ultraviolet light sources connected together.

15. The apparatus according to claim 11 including a water meter connected to said bypass conduit inlet for measuring water flow into the water purification apparatus.

5        16. The apparatus according to claim 15 including a control having an input connected to said water meter and outputs connected to said valves for opening and closing said valves in response to a sensed water flow rate.

17. The apparatus according to claim 11 including a first pressure gage connected at  
10 said inlet of said carbon filter and a second pressure gage connected at said outlet of said ultraviolet light source, said first and second pressure gages measuring a pressure differential.

18. The apparatus according to claim 17 including a control having inputs connected to said pressure gages and outputs connected to said valves for opening and closing said valves in  
15 response to a sensed pressure differential.

19. The apparatus according to claim 11 including a pressure gage connected to said bypass conduit between said first valve and said outlet of said bypass conduit.

20. A water purification apparatus for purifying water from a supply of water having a quantity of free residual chlorine comprising:

an inlet conduit and an outlet conduit;

a carbon filter for removing a quantity of the free residual chlorine from water, said carbon filter having an inlet and an outlet, said inlet of said carbon filter being connected to said inlet conduit;

a particle filter for removing solids from water and having an inlet and an outlet, said inlet of said particle filter being connected to said outlet of said carbon filter;

an ultraviolet light source for treating water for bacteria and having an inlet and an outlet, said inlet of said ultraviolet light source being connected to said outlet of said particle filter, said outlet of said ultraviolet light source being connected to said outlet conduit;

a bypass conduit having a first valve connected intermediate an inlet end and an outlet end, said inlet end of said bypass conduit being connected to said inlet conduit and said outlet end of said bypass conduit being connected to said outlet conduit;

a second valve connected between said inlet conduit and said inlet of said carbon filter; and

a third valve connected between said outlet of said ultraviolet light source and said outlet conduit whereby when said inlet conduit is connected to a supply of water having a quantity of free residual chlorine and said outlet conduit is connected to a point of use, said first valve can be closed and said second and third valves can be opened to provide purified water to the point of use and said first valve can be opened and said second and third valves can be closed to provide chlorinated water to the point of use.

21. The apparatus according to claim 20 including a first pressure gage connected at said inlet of said carbon filter and a second pressure gage connected at said outlet of said ultraviolet light source, said first and second pressure gages measuring a pressure differential.